

CONSTRUCTION

PRODUCTS

DIVISION

RECD JUL 12 1977

NUMBER: 67565

OFFICE: Zonolite

DATE: 7/11/77

CLARION NO.: 71-046

REQUESTOR: F.W. Eaton

MARKETING or MANUFACTURING APPROVAL:

NAME: T.E. Hamilton

APPROVED: T.E. Hamilton
(67)REQUEST FOR TECHNICAL SERVICE

PAGE 1

02225665

PROBLEM TITLE: Environmental Evaluation - Air - Fibrous Materials

SIGNIFICANCE: The evaluation of workplace air on a periodic basis is necessary to comply with the air sampling section of the OSHA Asbestos Standard.

SPECIFIC OBJECTIVE: Determine fiber counts for filter media.

SUGGESTED APPROACH: Phase contrast microscopy.

DEADLINE (Last day information will be of value): 2 weeks

DETAILS OF PROBLEM: Evaluate 6 samples from Savannah, N.Y. (attic test)

ACCEPTED BY RESEARCH DEPT.: Gay

DATE: 7/11/77

ASSIGNED TO: M. DoyleADDITIONAL COPIES: Original to Library, H.C. Duecker, H.A. Eschenbach, F.W. Eaton, R.M. Vining
E.S. Wood, W.W. Wolter, B.R. Williams, W.R. Hanlon,
CPD-T&A, File: 71-046

CONFIDENTIAL

15026228

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REQUEST FOR TECHNICAL SERVICE

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NUMBER: 67567 67565
GRC: ZONOLITE
ACTUAL COST: \$140.00
REPORTING DATE: July 11, 1977

SUMMARY:

Six attic test samples were received from Savannah, New York, and evaluated. Sample 18AS-PR2 was extremely dusty and impossible to read with any accuracy. The other five samples all showed fiber counts of greater than 7.5 fibers per cc of air.

02225666

RELEVANT PRIOR TECHNICAL SERVICE:

CONCLUSIONS:

DATA AND ANALYSIS:

See attachment.

Maurice A. Doyle
M. A. Doyle

MAD:mlr
attachment

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Actual Home Attic 22 Jars

GRACE

AIR SAMPLING RECORD SHEET

HOUSEKEEPING: P.R. REXINE JR. Home

LOCATION: SAVANNAH N.Y. SAMPLING CONDITIONS: OUTSIDE Hot & Humid

CONTAMINANT: FIBER 022225667

SAMPLING BY: F.W. EATON INSIDE DRAFT: NONE VERY HOT!

DATE: 7/7/77 VISIBLE DUST: VERY LITTLE

Sample Number	Employee Name	Job Location and Description	Remarks	Pump Number	Pump Off	Pump On	Sampling Time	Flow Rate	Total Sampled Volume	Lab Evaluation
18AS-PR1	DUNE	POURING ATTIC	POURING 6 BAGS EACH FROM TEST 18AS-2-F4 (CARBON TOTAL)	1CC-6			22	1.6		7.91
18AS-PR2	DUNE	FILL		1CC-7			22	1.6		K
18AS-PR3	DUNE	POURING ATTIC	POURING 3 BAGS EACH FROM TEST 18AS-6-F8 (CARBON TOTAL)	1CC-6			16	1.6		11.22
18AS-PR4	DUNE	FILL		1CC-7			16	1.6		9.08
18AS-PR5	DUNE		SAME AS 18AS-PR3-F4	1CC-6			15	1.6		8.27
18AS-PR6	DUNE			1CC-7			15	1.6		8.55

Additional Comments: ALL TEST MATERIAL IS SCREENED Laboratory Evaluation By: MALINDA DALL

LIBBY #3 (4 MESH) WITH ALL CYCLOPE FINES REMOVED. Date: 7/8/77

2) PUMP 1CC-6 RIGHT SHOWER, 1CC-7 LEFT

3) COMPARE RESULTS WITH SIMULATED ATTIC & DRAFT TESTS SEE COMMENTS REVERSE SIDE

* Infeasible to conduct sampling at this time.

OVER

02225668

4. HOME WAS BUILT APPROX 25 YRS AGO WITH NO ATTIC INSULATION. ABOUT 5 YRS AGO 1-2" OF ZONOLITE ATTIC FILL WAS POURED. IT LOOKED LIKE A MIXTURE OF 1 1/2" WITH MANY FINES.
5. BEFORE THESE TESTS WERE CONDUCTED, ATTIC EXHAUST FAN (VARIABLE SPEED 36" WHEEL) WAS TURNED ON FOR 20 MIN.
6. HEIGHT² ROOF RIDGE APPROX 5 FT. MAN IN STOOPED OR KNEELING POSITION WHILE POURING. ALL 24 BAGS WERE TAKEN TO ATTIC BEFORE CONDUCTING TEST.
7. 2 SAMPLING PUMPS WERE STARTED IN ATTIC JUST PRIOR TO POURING. PUMPS WERE SHUT OFF 1 MIN AFTER MAN CAME OUT OF ATTIC.
8. TEST ~~WAS~~ MATERIAL 18AS 2 & 4 VERY CLEAN. MATERIAL 18AS 6 & 8 A LITTLE DUSTY BUT NOT ANY MORE THAN SCREENED 1 1/2".

7/8/77

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VOICE

Actual Home At 2 Joes

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AIR SAMPLING RECORD SHEET

LOCATION SAVANNAH N.Y.

CONTAMINANT FIBER 02225667

SAMPLING BY F.W. EATON

DATE: 7/2/77

SAMPLING CONDITIONS:

OUTSIDE

HOT & HUMID

INSIDE DRAFT NONE VERY HOT!

VISIBLE DUST VERY LITTLE

HOUSEKEEPING:

P. REYER, JR. Home

Sample Number	Employee Name	Job Location and Description	Remarks	Pump Number	Pump Off	Pump On	Sampling Time	Flow Rate	Total Sampled Volume	Lab Evaluation
18AS-PR1	DUKE	POURING ATTC	POURING 6 BAGS EACH FROM TEST 18AS274 (2 BAGS TOTAL)	1CC-6			22	1.6		4.94
18AS-PR2	DUKE	FILL		1CC-7			22	1.6		
18AS-PR3	DUKE	POURING ATTC	POURING 3 BAGS EACH FROM TEST 18AS678 (6 BAGS TOTAL)	1CC-6			16	1.6		11.22
18AS-PR4	DUKE	FILL		1CC-7			16	1.6		4.08
18AS-PR5	DUKE		SAME AS 18AS-PR3 & 4	1CC-6			15	1.6		3.29
18AS-PR6	DUKE			1CC-7			15	1.6		8.55

Additional Comments: (1) ALL TEST MATERIAL IS SEVERAL

DIBAY #3 (14 MESH) WITH ALL CYCLONE FINES REMOVED.

(2) TIME 1CC6 RIGHT SOURCE, 1CC-7 LEFT

(3) COMPARE RESULTS WITH SIMULATED ATTC & DAP TESTS

& INVISIBLE TO NAD OCCUPATIONAL - EXTERNAL DUST

Laboratory Evaluation By: T. J. J. J. J.

Date: 7/2/77

SEE COMMENTS REVERSE SIDE

0E2920230

DIFFERENTIAL PRESSURE

REC'D JUL 11 1977

SIMULATED ATTIC TEST

03656689

TEST NO

FLOOR PRESSURE (f/m l)
AVE TWA $\frac{2}{8}$

1BAS2	4.915	1.236
1BAS4	6.510	1.635
1BAS6	7.834	1.959
1BAS8	11.355	2.839

AVE. ALL FOUR SIMULATED ATTIC TESTS = 7.657 f/m l
 67 MIN. SAMPLE TIME TWA = 1.069 f/m l
 $\frac{2}{8}$ CPD STD TWA = 1.914 f/m l

ACTUAL HOME ATTIC TEST - SAVANNAH N.Y.

- AVE OF SIX(6) SAMPLES = 3.958 f/m l
 53 MIN. SAMPLE TIME TWA = 0.989
 $\frac{2}{8}$ CPD STD TWA = 2.239

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